

L4 ANSWER 28 OF 34 USPATFULL on STN

ACCESSION NUMBER: 1998:104572 USPATFULL

TITLE: Dioxetane-precursor-labeled probes and detection assays employing the same

INVENTOR(S): Bronstein, Irena, Newton, MA, United States
Edwards, Brooks, Cambridge, MA, United States
Martin, Christopher, Bedford, MA, United States
Voyta, John, Sudbury, MA, United States

PATENT ASSIGNEE(S): Tropix, Inc., Bedford, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5800999		19980901
APPLICATION INFO.:	US 1996-767479		19961216 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kunz, Gary L.		
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1,9		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	911		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Probes labeled with 1,2-dioxetane precursors can be employed in a variety of assays. The probes may be nucleic acid, peptide nucleic acid, proteins including enzyme, antibody or antigen, steroid, carbohydrate, drug or non-drug hapten. The probe is provided with a 1,2-dioxetane precursor bound thereto, generally either covalently, or a strong ligand bond. The dioxetane precursor moiety is converted to a bound 1,2-dioxetane by exposure to singlet oxygen. These dioxetane (labels) either spontaneously decompose, or are induced to decompose by an appropriate trigger to release light. The trigger may be a change in pH temperature, or an agent which removes a protective group. Assay formats in which these 1,2-dioxetane labeled probes and referents may be used to include hybridization assays, immuno assays, gel-based assays and Capillary Zone Electrophoresis.

DETD A **sandwich** immunoassay can also be designed with photosensitizing dye **labeled capture antibody** immobilized on a solid phase. After incubation with an antigen containing sample and a dioxetane labeled detector antibody, the sample. . .

DETD A Quantitative **Sandwich** Immunoassay Using Dioxetane Precursor Labeled Detection Antibodies and Sensitizer Dye **Labeled Capture Antibodies**